

# **In vivo 3D measurement of moxifloxacin and gatifloxacin distributions in the mouse cornea using multiphoton microscopy**

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## Supplementary figure legends

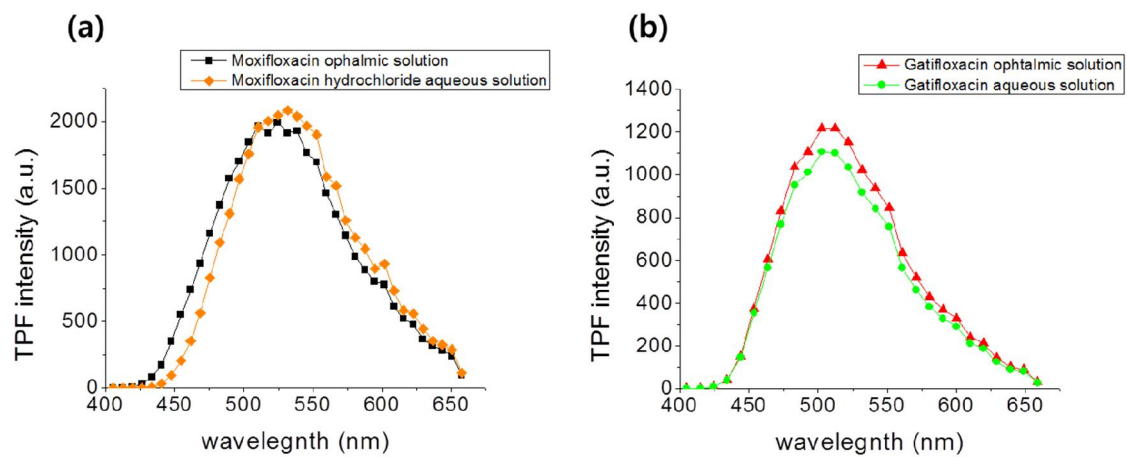
Supplementary figure S1. Emission spectra of moxifloxacin and gatifloxacin in their aqueous solutions and ophthalmic solutions. (a) emission spectra of 0.5 % moxifloxacin ophthalmic solution and 0.5 % moxifloxacin hydrochloride aqueous solution. (b) emission spectra of 0.3 % gatifloxacin ophthalmic solution and 0.3% gatifloxacin aqueous solution.

Supplementary figure S2. MPM images of superficial epithelium after 15min after moxifloxacin and gatifloxacin administration. (a) superficial epithelium of moxifloxacin administrated cornea. (b) superficial epithelium of gatifloxacin administrated cornea

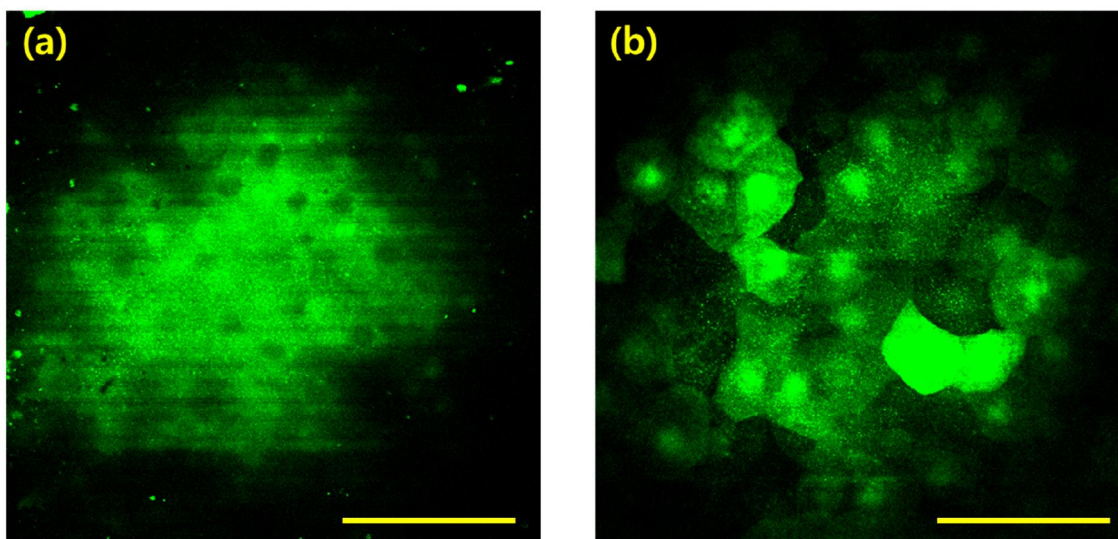
Supplementary figure S3. Analysis of average fluorescence intensity in the MPM cornea images. (a) region of interest (ROI) ( $129\text{ }\mu\text{m} \times 129\text{ }\mu\text{m}$ ) in the epithelium image. (b) ROI ( $129\text{ }\mu\text{m} \times 129\text{ }\mu\text{m}$ ) in the endothelium image. (c) 7x7 sub-blocks in the ROI of (a).

## Supplementary figures

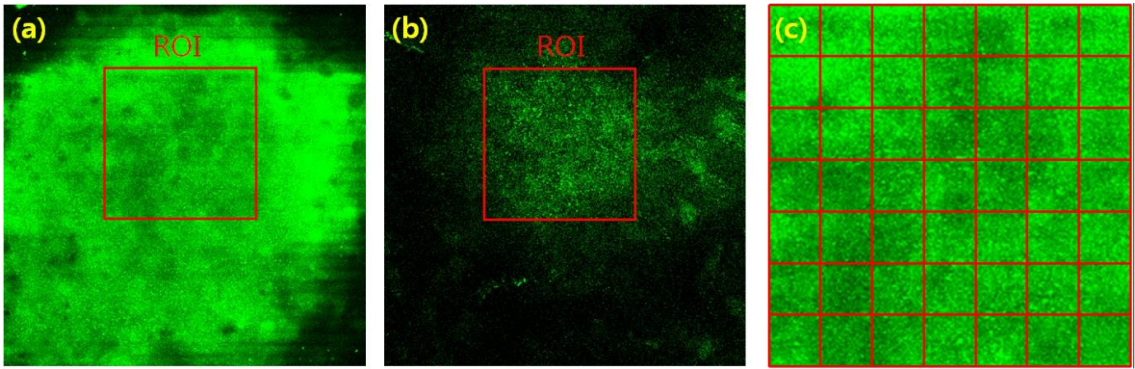
Supplementary figure S1.



Supplementary figure S2.



Supplementary figure S3.



## Supplementary video legends

Supplementary video S1: a 3D multiphoton image of the moxifloxacin treated mouse cornea in 15 min after topical administration.

Supplementary video S2: a 3D multiphoton image of the gatifloxacin treated mouse cornea in 15 min after topical administration.